

Appendix 1

PURPA Sections 201 and 210

SEC. 201. DEFINITIONS.

Section 3 of the Federal Power Act is amended by inserting the following before the period at the end thereof:

“(17) (A) ‘small power production facility’ means a facility which—

“(i) produces electric energy solely by the use, as a primary energy source, of biomass, waste, renewable resources, or any combination thereof; and

“(ii) has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission), is not greater than 80 megawatts;

“(B) ‘primary energy source’ means the fuel or fuels used for the generation of electric energy, except that such term does not include, as determined under rules prescribed by the Commission, in consultation with the Secretary of Energy—

“(i) the minimum amounts of fuel required for ignition, startup, testing, flame stabilization, and control uses, and

“(ii) the minimum amounts of fuel required to alleviate or prevent—

“(I) unanticipated equipment outages, and

“(II) emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages;

“(C) ‘qualifying small power production facility’ means a small power production facility—

“(i) which the Commission determines, by rule, meets such requirements (including requirements respecting fuel use, fuel efficiency, and reliability) as the Commission may, by rule, prescribe; and

“(ii) which is owned by a person not primarily engaged in the generation or sale of electric power (other than electric

power solely from cogeneration facilities or small power production facilities);

“(D) ‘qualifying small power producer’ means the owner or operator of a qualifying small power production facility;

“(18) (A) ‘cogeneration facility’ means a facility which produces—

“(i) electric energy, and

“(ii) steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes;

“(B) ‘qualifying cogeneration facility’ means a cogeneration facility which—

“(i) the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe; and

“(ii) is owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities);

“(C) ‘qualifying cogenerator’ means the owner or operator of a qualifying cogeneration facility;

“(19) ‘Federal power marketing agency’ means any agency or instrumentality of the United States (other than the Tennessee Valley Authority) which sells electric energy;

“(20) ‘evidentiary hearing’ and ‘evidentiary proceeding’ mean a proceeding conducted as provided in sections 554, 556, and 557 of title 5, United States Code;

“(21) ‘State regulatory authority’ has the same meaning as the term ‘State commission’, except that in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority (as defined in section 3 of the Public Utility Regulatory Policies Act of 1978), such term means the Tennessee Valley Authority;

“(22) ‘electric utility’ means any person or State agency which sells electric energy; such term includes the Tennessee Valley Authority, but does not include any Federal power marketing agency.”

SEC. 210. COGENERATION AND SMALL POWER PRODUCTION.

(a) COGENERATION AND SMALL POWER PRODUCTION RULES. — Not later than 1 year after the date of enactment of this Act, the

Commission shall prescribe, and from time to time thereafter revise, such rules as it determines necessary to encourage cogeneration and small power production which rules require electric utilities to offer to—

(1) sell electric energy to qualifying cogeneration facilities and qualifying small power production facilities and

(2) purchase electric energy from such facilities.

Such rules shall be prescribed, after consultation with representatives of Federal and State regulatory agencies having ratemaking authority for electric utilities, and after public notice and a reasonable opportunity for interested persons (including State and Federal agencies) to submit oral as well as written data, views, and arguments. Such rules shall include provisions respecting minimum reliability of qualifying cogeneration facilities and qualifying small power production facilities (including reliability of such facilities during emergencies) and rules respecting reliability of electric energy service to be available to such facilities from electric utilities during emergencies. Such rules may not authorize a qualifying cogeneration facility or qualifying small power production facility to make any sale for purposes other than resale.

(b) **RATES FOR PURCHASES BY ELECTRIC UTILITIES.**—The rules prescribed under subsection (a) shall insure that, in requiring any electric utility to offer to purchase electric energy from any qualifying cogeneration facility or qualifying small power production facility, the rates for such purchase—

(1) shall be just and reasonable to the electric consumers of the electric utility and in the public interest, and

(2) shall not discriminate against qualifying cogenerators or qualifying small power producers.

No such rule prescribed under subsection (a) shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy.

(c) **RATES FOR SALES BY UTILITIES.**—The rules prescribed under subsection (a) shall insure that, in requiring any electric utility to offer to sell electric energy to any qualifying cogeneration facility or qualifying small power production facility, the rates for such sale—

(1) shall be just and reasonable and in the public interest, and

(2) shall not discriminate against the qualifying cogenerators or qualifying small power producers.

(d) **DEFINITION.**—For purposes of this section, the term “incremental cost of alternative electric energy” means, with respect to electric energy purchased from a qualifying cogenerator or

qualifying small power producer, the cost to the electric utility of the electric energy which, but for the purchase from such cogenerator or small power producer, such utility would generate or purchase from another source.

(e) EXEMPTIONS.—(1) Not later than 1 year after the date of enactment of this Act and from time to time thereafter, the Commission shall, after consultation with representatives of State regulatory authorities, electric utilities, owners of cogeneration facilities and owners of small power production facilities, and after public notice and a reasonable opportunity for interested persons (including State and Federal agencies) to submit oral as well as written data, views, and arguments, prescribe rules under which qualifying cogeneration facilities and qualifying small power production facilities are exempted in whole or part from the Federal Power Act, from the Public Utility Holding Company Act, from State laws and regulations respecting the rates, or respecting the financial or organizational regulation, of electric utilities, or from any combination of the foregoing, if the Commission determines such exemption is necessary to encourage cogeneration and small power production.

(2) No qualifying small power production facility which has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission), exceeds 30 megawatts may be exempted under rules under paragraph (1) from any provision of law or regulation referred to in paragraph (1), except that any qualifying small power production facility which produces electric energy solely by the use of biomass as a primary energy source may be exempted by the Commission under such rules from the Public Utility Holding Company Act and from State laws and regulations referred to in such paragraph (1).

(3) No qualifying small power production facility or qualifying cogeneration facility may be exempted under this subsection from—

(A) any State law or regulation in effect in a State pursuant to subsection (f),

(B) the provisions of section 210, 211, or 212 of the Federal Power Act or the necessary authorities for enforcement of any such provision under the Federal Power Act, or

(C) any license or permit requirement under part I of the Federal Power Act, any provision under such Act related to such a license or permit requirement, or the necessary authorities for enforcement of any such requirement.

(f) IMPLEMENTATION OF RULES FOR QUALIFYING COGENERATION AND QUALIFYING SMALL POWER PRODUCTION FACILITIES.—(1) Beginning on

or before the date one year after any rule is prescribed by the Commission under subsection (a) or revised under such subsection, each State regulatory authority shall, after notice and opportunity for public hearing, implement such rule (or revised rule) for each electric utility for which it has ratemaking authority.

SMALL QUALIFYING POWER PRODUCTION FACILITIES.—(1) Beginning on or before the date one year after any rule is prescribed by the Commission under subsection (a) or revised under such subsection, each State regulatory authority shall, after notice and opportunity for public hearing, implement such rule (or revised rule) for each electric utility for which it has ratemaking authority.

(2) Beginning on or before the date one year after any rule is prescribed by the Commission under subsection (a) or revised under such subsection, each nonregulated electric utility shall, after notice and opportunity for public hearing, implement such rule (or revised rule).

(g) **JUDICIAL REVIEW AND ENFORCEMENT.**—(1) Judicial review may be obtained respecting any proceeding conducted by a State regulatory authority or nonregulated electric utility for purposes of implementing any requirement of a rule under subsection (a) in the same manner, and under the same requirements, as judicial review may be obtained under section 123 in the case of a proceeding to which section 123 applies.

(2) Any person (including the Secretary) may bring an action against any electric utility, qualifying small power producer, or qualifying cogenerator to enforce any requirement established by a State regulatory authority or nonregulated electric utility pursuant to subsection (f). Any such action shall be brought only in the manner, and under the requirements, as provided under section 123 with respect to an action to which section 123 applies.

(h) **COMMISSION ENFORCEMENT.**—(1) For purposes of enforcement of any rule prescribed by the Commission under subsection (a) with respect to any operations of an electric utility, a qualifying cogeneration facility or a qualifying small power production facility which are subject to the jurisdiction of the Commission under part II of the Federal Power Act, such rule shall be treated as a rule under the Federal Power Act. Nothing in subsection (g) shall apply to so much of the operations of an electric utility, a qualifying cogeneration facility or a qualifying small power production facility as are subject to the jurisdiction of the Commission under part II of the Federal Power Act.

(2) (A) The Commission may enforce the requirements of subsection (f) against any State regulatory authority or nonregulated electric utility. For purposes of any such enforcement, the

requirements of subsection (f) (1) shall be treated as a rule enforceable under the Federal Power Act. For purposes of any such action, a State regulatory authority or nonregulated electric utility shall be treated as a person within the meaning of the Federal Power Act. No enforcement action may be brought by the Commission under this section other than—

(i) an action against the State regulatory authority or nonregulated electric utility for failure to comply with the requirements of subsection (f) or

(ii) an action under paragraph (1).

(B) Any electric utility, qualifying cogenerator, or qualifying small power producer may petition the Commission to enforce the requirements of subsection (f) as provided in subparagraph (A) of this paragraph. If the Commission does not initiate an enforcement action under subparagraph (A) against a State regulatory authority or nonregulated electric utility within 60 days following the date on which a petition is filed under this subparagraph with respect to such authority, the petitioner may bring an action in the appropriate United States district court to require such State regulatory authority or nonregulated electric utility to comply with such requirements, and such court may issue such injunctive or other relief as may be appropriate. The Commission may intervene as a matter of right in any such action.

(i) FEDERAL CONTRACTS. — No contract between a Federal agency and any electric utility for the sale of electric energy by such Federal agency for resale which is entered into after the date of the enactment of this Act may contain any provision which will have the effect of preventing the implementation of any rule under this section with respect to such utility. Any provision in any such contract which has such effect shall be null and void.

(j) DEFINITIONS. — For purposes of this section, the terms “small power production facility,” “qualifying small power production facility,” “qualifying small power producer,” “primary energy source,” “cogeneration facility,” “qualifying cogeneration facility,” and “qualifying cogenerator” have the respective meanings provided for such terms under section 3 (17) and (18) of the Federal Power Act.

Appendix 2

Federal Energy Regulatory Commission Regulations Implementing PURPA Sections 201 and 210

1. Part 292 of Subchapter K is amended by adding a new Subpart B to read as follows:

Subpart B—Qualifying Cogeneration and Small Power Production Facilities

Sec.

292.201 Scope.

292.202 Definitions.

292.203 General requirements for qualification.

292.204 Criteria for qualifying small power production facilities.

292.205 Criteria for qualifying cogeneration facilities.

292.206 Ownership criteria.

292.207 Procedures for obtaining qualifying status.

Authority: Public Utility Regulatory Policies Act of 1978, (16 U.S.C. 2601, *et seq.*), Energy Supply and Environmental Coordination Act, (15 U.S.C. 791 *et seq.*), Federal Power Act, as amended, (16 U.S.C. 792, *et seq.*), Department of Energy Organization Act, (42 U.S.C. 7101 *et seq.*), E.O. 12009, 42 FR 46267, Natural Gas Policy Act of 1978, (15 U.S.C. 3301, *et seq.*)

Subpart B—Qualifying Cogeneration and Small Power Production Facilities

§ 292.201 Scope.

This subpart applies to the criteria for and manner of becoming a qualifying small power production facility and a qualifying

cogeneration facility under sections 3(17)(C) and 3(18)(B), respectively, of the Federal Power Act, as amended by section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA).

§ 292.202 Definitions.

For purposes of this subpart:

(a) "Biomass" means any organic material not derived from fossil fuels;

(b) "Waste" means by-product materials other than biomass;

(c) "Cogeneration facility" means equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam), used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy;

(d) "Topping-cycle cogeneration facility" means a cogeneration facility in which the energy input to the facility is first used to produce useful power output, and the reject heat from power production is then used to provide useful thermal energy;

(e) "Bottoming-cycle cogeneration facility" means a cogeneration facility in which the energy input to the system is first applied to a useful thermal energy process, and the reject heat emerging from the process is then used for power production;

(f) "Supplementary firing" means an energy input to the cogeneration facility used only in the thermal process of a topping-cycle cogeneration facility, or only in the electric generating process of a bottoming-cycle cogeneration facility;

(g) "Useful power output" of a cogeneration facility means the electric or mechanical energy made available for use, exclusive of any such energy used in the power production process;

(h) "Useful thermal energy output" of a topping-cycle cogeneration facility means the thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application;

(i) "Total energy output" of a topping-cycle cogeneration facility is the sum of the useful power output and useful thermal energy output;

(j) "Total energy input" means the total energy of all forms supplied from external sources other than supplementary firing to the facility;

(k) "Natural gas" means either natural gas unmixed, or any mixture of natural gas and artificial gas;

(l) "Oil" means crude oil, residual fuel oil, natural gas liquids, or any refined petroleum products; and

(m) Energy input in the case of energy in the form of natural gas or oil is to be measured by the lower heating value of the natural gas or oil.

§ 292.203 General requirements for qualification.

(a) *Small power production facilities.* A small power production facility is a qualifying facility if it:

- (1) Meets the maximum size criteria specified in § 292.204(a);
- (2) Meets the fuel use criteria specified in § 292.204(b); and
- (3) Meets the ownership criteria specified in § 292.206.

(b) *Cogeneration facilities.* (1) Unless excluded under paragraph (c), a cogeneration facility is a qualifying facility if it:

(i) Meets any applicable operating and efficiency standards specified in § 292.205(a) and (b); and

(ii) Meets the ownership criteria specified in § 292.206

(2) For purposes of qualification of a cogeneration facility for exemption from incremental pricing, a cogeneration facility must qualify under § 292.205(c).

(c) *Interim exclusion.* (1) Pending further Commission action, any cogeneration facility which is a new diesel cogeneration facility may not be a qualifying facility.

(2) A new diesel cogeneration facility is a cogeneration facility:

(i) Which derives its useful power output from a diesel engine, and

(ii) The installation of which began on or after March 13, 1980.

§ 292.204 Criteria for qualifying small power production facilities.

(a) *Size of the facility*—(1) *Maximum size.* The power production capacity of the facility for which qualification is sought, together with the capacity of any other facilities which use the same energy resource, are owned by the same person, and are located at the same site, may not exceed 80 megawatts.

(2) *Method of calculation.* (i) For purposes of this paragraph, facilities are considered to be located at the same site as the facility for which qualification is sought if they are located within one mile of the facility for which qualification is sought and, for hydroelectric facilities, if they use water from the same impoundment for power generation.

(ii) For purposes of making the determination in clause (i), the distance between facilities shall be measured from the electrical generating equipment of a facility.

(3) *Waiver.* The Commission may modify the application of subparagraph (2) for good cause.

(b) *Fuel use.* (1)(i) The primary energy source of the facility must be biomass, waste, renewable resources, or any combination thereof, and more than 50 percent of the total energy input must be from these sources.

(ii) Any primary energy source which, on the basis of its energy content, is 50 percent or more biomass shall be considered biomass.

(2) Use of oil, natural gas, and coal by a facility may not, in the aggregate, exceed 25 percent of the total energy input of the facility during any calendar year period.

§ 292.205 Criteria for qualifying cogeneration facilities.

(a) *Operating and efficiency standards for topping-cycle facilities*—(1) *Operating standard.* For any topping-cycle cogeneration facility, the useful thermal energy output of the facility must, during any calendar year period, be no less than 5 percent of the total energy output.

(2) *Efficiency standard.* (i) For any topping-cycle cogeneration facility for which any of the energy input is natural gas or oil, and the installation of which began on or after March 13, 1980, the useful power output of the facility plus one-half the useful thermal energy output, during any calendar year period, must:

(A) Subject to paragraph (a)(2)(i)(B) of this section be no less than 42.5 percent of the total energy input of natural gas and oil to the facility; or

(B) If the useful thermal energy output is less than 15 percent of the total energy output of the facility, be no less than 45 percent of the total energy input of natural gas and oil to the facility.

(ii) For any topping-cycle cogeneration facility not subject to paragraph (a)(2)(i) of this section there is no efficiency standard.

(b) *Efficiency standards for bottoming-cycle facilities.* (1) For any bottoming-cycle cogeneration facility for which any of the energy input as supplementary firing is natural gas or oil, and the installation of which began on or after March 13, 1980, the useful power output of the facility must, during any calendar year period, be no less than 45 percent of the energy input of natural gas and oil for supplementary firing.

(2) For any bottoming-cycle cogeneration facility not covered by subparagraph (1) of this paragraph, there is no efficiency standard.

(c) *Exemption from incremental pricing.* (1) Natural gas used in any topping-cycle cogeneration facility is eligible for an exemption

from incremental pricing under Title II of the Natural Gas Policy Act of 1978 (NGPA) and Part 282 of the Commission's rules if:

(i) The facility meets the operating and efficiency standards under paragraphs (a)(1) and (2)(i) of this section and is a qualifying facility under § 292.203(b)(1); or

(ii) The facility is a qualifying facility under Subpart E of this part.

(2) Natural gas used in any bottoming-cycle cogeneration facility, not subject to an exemption from incremental pricing under Subpart E of this part, is eligible for an exemption under Title II of the NGPA and Part 282 of the Commission's rules to the extent that reject heat emerging from the useful thermal energy process is made available for use for power production.

(3) Nothing in this subpart affects any exemption provided under Subpart E of this part.

(4) Natural gas used for supplementary firing in any cogeneration facility is not eligible under this part for exemption from incremental pricing.

(d) *Waiver.* The Commission may waive any of the requirements of paragraphs (a), (b) and (c) of this section upon a showing that the facility will produce significant energy savings.

§ 292.206 Ownership criteria.

(a) *General rule.* A cogeneration facility or small power production facility may not be owned by a person primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities).

(b) *Ownership test.* For purposes of this section, a cogeneration or small power production facility shall be considered to be owned by a person primarily engaged in the generation or sale of electric power, if more than 50 percent of the equity interest in the facility is held by an electric utility or utilities, or by a public utility holding company, or companies, or any combination thereof. If a wholly or partially owned subsidiary of an electric utility or public utility holding company has an ownership interest of a facility, the subsidiary's ownership interest shall be considered as ownership by an electric utility or public utility holding company.

§ 292.207 Procedures for obtaining qualifying status.

(a) *Qualification.* (1) A small power production facility or cogeneration facility which meets the criteria for qualification set forth in § 292.203 is a qualifying facility.

(2) The owner or operator of any facility qualifying under this paragraph shall furnish notice to the Commission providing the information set forth in paragraph (b)(2)(i) through (iv) of this section.

(b) *Optional procedure*—(1) *Application for Commission certification.* Pursuant to the provisions of this paragraph, the owner or operator of the facility may file with this Commission an application for Commission certification that the facility is a qualifying facility.

(2) *General contents of application.* The application shall contain the following information:

(i) The name and address of the applicant and location of the facility;

(ii) A brief description of the facility, including a statement indicating whether such facility is a small power production facility or a cogeneration facility;

(iii) The primary energy source used or to be used by the facility;

(iv) The power production capacity of the facility; and

(v) The percentage of ownership by any electricity utility or by any public utility holding company, or by any person owned by either.

(3) *Additional application requirements for small power production facilities.* An application by a small power producer for Commission certification shall contain the following additional information:

(i) The location of the facility in relation to any other small power production facilities located within one mile of the facility, owned by the applicant which use the same energy source; and

(ii) Information identifying any planned usage of natural gas, oil or coal.

(4) *Additional application requirements for cogeneration facilities.* An application by a cogenerator for Commission certification shall contain the following additional information:

(i) A description of the cogeneration system, including whether the facility is a topping or bottoming cycle and sufficient information to determine that any applicable requirements under § 292.205 will be met; and

(ii) The date installation of the facility began or will begin.

(5) *Commission action.* Within 90 days of the filing of an application, the Commission shall issue an order granting or denying the application, tolling the time for issuance of an order, or setting the matter for hearing. Any order denying certification shall identify the specific requirements which were not met. If no order is issued within 90 days of the filing of the complete application, it shall be deemed to have been granted.

(c) *Notice requirements for facilities of 500 kw or more.* An electric utility is not required to purchase electric energy from a facility with a design capacity of 500 kw or more until 90 days after the facility notifies the utility that it is a qualifying facility, or 90 days after the facility has applied to the Commission under paragraph (b) of this section.

(d) *Revocation of qualifying status.* (1) The Commission may revoke the qualifying status of a qualifying facility which has been certified under this section if such facility fails to comply with any of the statements contained in its application for Commission certification.

(2) Prior to undertaking any substantial alteration or modification of a qualifying facility which has been certified under this section, a small power producer or cogenerator may apply to the Commission for a determination that the proposed alteration or modification will not result in a revocation of qualifying status.

PART 292—REGULATIONS UNDER SECTIONS 201 AND 210 OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978 WITH REGARD TO SMALL POWER PRODUCTION AND COGENERATION.

Subpart A—General Provisions

Sec.

292.101 Definitions.

Subpart B—[Reserved]

Subpart C—Arrangements Between Electric Utilities and Qualifying Cogeneration and Small Power Production Facilities Under Section 210 of the Public Utility Regulatory Policies Act of 1978

292.301 Scope.

292.302 Availability of Electric Utility System Cost Data.

292.303 Electric Utility Obligations Under This Subpart.

292.304 Rates for Purchases.

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292.306 Interconnection Costs.

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292.308 Standards for Operating Reliability.

Subpart D—Implementation

292.401 Implementation by State Regulatory Authorities and Nonregulated Utilities.

292.402 Implementation of Certain Reporting Requirements.

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Subpart F—Exemption of Qualifying Small Power Production Facilities and Cogeneration Facilities from Certain Federal and State Laws and Regulations

292.601 Exemption of Qualifying Facilities from the Federal Power Act.

292.602 Exemption of Qualifying Facilities from the Public Utility Holding Company Act and Certain State Law and Regulation.

Authority: This part issued under the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. § 2601 *et seq.*, Energy Supply and Environmental Coordination Act, 15, U.S.C. § 791 *et seq.* Federal Power Act, 16 U.S.C. § 792 *et seq.* Department of Energy Organization Act, 42 U.S.C. § 7101 *et seq.*, E.O. 12009, 42 FR 46267.

Subpart A—General Provisions

§ 292.101 Definitions.

(a) *General rule.* Terms defined in the Public Utility Regulatory Policies Act of 1978 (PURPA) shall have the same meaning for purposes of this part as they have under PURPA, unless further defined in this part.

(b) *Definitions.* The following definitions apply for purposes of this part.

(1) "Qualifying facility" means a cogeneration facility or a small power production facility which is a qualifying facility under Subpart B of this part of the Commission's regulations.

(2) "Purchase" means the purchase of electric energy or capacity or both from a qualifying facility by an electric utility.

(3) "Sale" means the sale of electric energy or capacity or both by an electric utility to a qualifying facility.

(4) "System emergency" means a condition on a utility's system which is likely to result in imminent significant disruption of service to customers or is imminently likely to endanger life or property.

(5) "Rate" means by price, rate, charge, or classification made, demanded, observed or received with respect to the sale or purchase of electric energy or capacity, or any rule, regulation, or

practice respecting any such rate, charge, or classification, and any contract pertaining to the sale or purchase of electric energy or capacity.

(6) "Avoided costs" means the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.

(7) "Interconnection costs" means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions and administrative costs incurred by the electric utility directly related to the installation and maintenance of the physical facilities to permit interconnected operations with a qualifying facility, to the extent such costs are in excess of the corresponding costs which the electric utility would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection costs do not include any costs included in the calculation of avoided costs.

(8) "Supplementary power" means electric energy or capacity supplied by an electric utility, regularly used by a qualifying facility in addition to that which the facility generates itself.

(9) "Back-up power" means electric energy or capacity supplied by an electric utility to replace energy ordinarily generated by a facility's own generation equipment during an unscheduled outage of the facility.

(10) "Interruptible power" means electric energy or capacity supplied by an electric utility subject to interruption by the electric utility under specified conditions.

(11) "Maintenance power" means electric energy or capacity supplied by an electric utility during scheduled outages of the qualifying facility.

Subpart B—[Reserved]

Subpart C—Arrangements Between Electric Utilities and Qualifying Cogeneration and Small Power Production Facilities Under Section 210 of the Public Utility Regulatory Policies Act of 1978

§ 292.301 Scope.

(a) *Applicability.* This subpart applies to the regulation of sales and purchases between qualifying facilities and electric utilities.

(b) *Negotiated rates or terms.* Nothing in this subpart:

(1) Limits the authority of any electric utility or any qualifying facility to agree to a rate for any purchase, or terms or conditions relating to any purchase, which differ from the rate or terms or conditions which would otherwise be required by this subpart; or

(2) Affects the validity of any contract entered into between a qualifying facility and an electric utility for any purchase.

§ 292.302 Availability of electric utility system cost data.

(a) *Applicability.* (1) Except as provided in paragraph (a)(2) of this section, paragraph (b) applies to each electric utility, in any calendar year, if the total sales of electric energy by such utility for purposes other than resale exceeded 500 million kilowatt-hours during any calendar year beginning after December 31, 1975, and before the immediately preceding calendar year.

(2) Each utility having total sales of electric energy for purposes other than resale of less than one billion kilowatt-hours during any calendar year beginning after December 31, 1975, and before the immediately preceding year, shall not be subject to the provisions of this section until May 31, 1982.

(b) *General rule.* To make available data from which avoided costs may be derived, not later than November 1, 1980, May 31, 1982, and not less often than every two years thereafter, each regulated electric utility described in paragraph (a) of this section shall provide to its State regulatory authority, and shall maintain for public inspection, and each nonregulated electric utility described in paragraph (a) of this section shall maintain for public inspection, the following data:

(1) The estimated avoided cost on the electric utility's system, solely with respect to the energy component, for various levels of purchases from qualifying facilities. Such levels of purchases shall be stated in blocks of not more than 100 megawatts for systems with peak demand of 1000 megawatts or more, and in blocks equivalent to not more than 10 percent of the system peak demand for systems of less than 1000 megawatts. The avoided costs shall be stated on a cents per kilowatt-hour basis, during daily and seasonal peak and off-peak periods, by year, for the current calendar year and each of the next 5 years;

(2) The electric utility's plan for the addition of capacity by amount and type, for purchases of firm energy and capacity, and for capacity retirements for each year during the succeeding 10 years; and

(3) The estimated capacity costs at completion of the planned capacity additions and planned capacity firm purchases, on the basis of dollars per kilowatt, and the associated energy costs of each unit, expressed in cents per kilowatt hour. These costs shall be expressed in terms of individual generating units and of individual planned firm purchases.

(c) *Special rule for small electric utilities.*

(1) Each electric utility (other than any electric utility to which paragraph (b) of this section applies) shall, upon request:

(i) Provide comparable data to that required under paragraph (b) of this section to enable qualifying facilities to estimate the electric utility's avoided costs for periods described in paragraph (b) of this section; or

(ii) With regard to an electric utility which is legally obligated to obtain all its requirements for electric energy and capacity from another electric utility, provide the data of its supplying utility and the rates at which it currently purchases such energy and capacity.

(2) If any such electric utility fails to provide such information on request, the qualifying facility may apply to the State regulatory authority (which has ratemaking authority over the electric utility) or the Commission for an order requiring that the information be provided.

(d) *Substitution of alternative method.* (1) After public notice in the area served by the electric utility, and after opportunity for public comment, any State regulatory authority may require with respect to any electric utility over which it has ratemaking authority, or any non-regulated electric utility may provide data different than those which are otherwise required by this section if it determines that avoided costs can be derived from such data.

(2) Any State regulatory authority with respect to any electric utility over which it has ratemaking authority) or nonregulated utility which requires such different data shall notify the Commission within 30 days of making such determination.

(e) *State Review.* (1) Any data submitted by an electric utility under this section shall be subject to review by the State regulatory authority which has ratemaking authority over such electric utility.

(2) In any such review, the electric utility has the burden of coming forward with justification for its data.

§ 292.303 Electric utility obligations under this subpart.

(a) *Obligation to purchase from qualifying facilities.* Each electric utility shall purchase, in accordance with § 292.304, any energy and

capacity which is made available from a qualifying facility:

- (1) Directly to the electric utility; or
- (2) Indirectly to the electric utility in accordance with paragraph (d) of this section.

(b) *Obligation to sell to qualifying facilities.* Each electric utility shall sell to any qualifying facility, in accordance with § 292.305, any energy and capacity requested by the qualifying facility.

(c) *Obligation to interconnect.* (1) subject to paragraph (c)(2) of this section, any electric utility shall make such interconnections with any qualifying facility as may be necessary to accomplish purchases or sales under this subpart. The obligation to pay for any interconnection costs shall be determined in accordance with § 292.306.

(2) No electric utility is required to interconnect with any qualifying facility if, solely by reason of purchases or sales over the interconnection, the electric utility would become subject to regulation as a public utility under Part II of the Federal Power Act.

(d) *Transmission to other electric utilities.* If a qualifying facility agrees, an electric utility which would otherwise be obligated to purchase energy or capacity from such qualifying facility may transmit the energy or capacity to any other electric utility. Any electric utility to which such energy or capacity is transmitted shall purchase such energy or capacity under this subpart as if the qualifying facility were supplying energy or capacity directly to such electric utility. The rate for purchase by the electric utility to which such energy is transmitted shall be adjusted up or down to reflect line losses pursuant to § 292.304(e)(4) and shall not include any charges for transmission.

(e) *Parallel operation.* Each electric utility shall offer to operate in parallel with a qualifying facility, provided that the qualifying facility complies with any applicable standards established in accordance with § 292.308.

§ 292.304 Rates for purchases.

- (a) *Rates for purchases.* (1) Rates for purchases shall:
- (i) Be just and reasonable to the electric consumer of the electric utility and in the public interest; and
 - (ii) Not discriminate against qualifying cogeneration and small power production facilities.

(2) Nothing in this subpart requires any electric utility to pay more than the avoided costs for purchases.

(b) *Relationship to avoided costs.* (1) For purposes of this paragraph, "new capacity" means any purchase from capacity of a

qualifying facility, construction of which was commenced on or after November 9, 1978.

(2) Subject to paragraph (b)(3) of this section, a rate for purchases satisfies the requirements of paragraph (a) of this section if the rate equals the avoided costs determined after consideration of the factors set forth in paragraph (e) of this section.

(3) A rate for purchases (other than from new capacity) may be less than the avoided cost if the State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or the nonregulated electric utility determines that a lower rate is consistent with paragraph (a) of this section, and is sufficient to encourage cogeneration and small power production.

(4) Rates for purchases from new capacity shall be in accordance with paragraph (b)(2) of this section, regardless of whether the electric utility making such purchases is simultaneously making sales to the qualifying facility.

(5) In the case in which the rates for purchases are based upon estimates of avoided costs over the specific term of the contract or other legally enforceable obligation, the rates for such purchases do not violate this subpart if the rates for such purchases differ from avoided costs at the time of delivery.

(c) *Standard rates for purchases.* (1) There shall be put into effect (with respect to each electric utility) standard rates for purchases from qualifying facilities with a design capacity of 100 kilowatts or less:

(2) There may be put into effect standard rates for purchases from qualifying facilities with a design capacity of more than 100 kilowatts.

(3) The standard rates for purchases under this paragraph:

(i) Shall be consistent with paragraphs (a) and (e) of this section; and

(ii) May differentiate among qualifying facilities using various technologies on the basis of the supply characteristics of the different technologies.

(d) *Purchases "as available" or pursuant to a legally enforceable obligation.* Each qualifying facility shall have the option either:

(1) To provide energy as the qualifying facility determines such energy to be available for such purchases, in which case the rates for such purchases shall be based on the purchasing utility's avoided costs calculated at the time of delivery; or

(2) To provide energy or capacity pursuant to a legally enforceable obligation for the delivery of energy or capacity over a specified term, in which case the rates for such purchases shall, at

the option of the qualifying facility exercised prior to the beginning of the specified term, be based on either:

- (i) The avoided costs calculated at the time of delivery; or
- (ii) The avoided costs calculated at the time the obligation is incurred.

(e) *Factors affecting rates for purchases.* In determining avoided costs, the following factors shall, to the extent practicable, be taken into account:

- (1) The data provided pursuant to § 292.302(b), (c), or (d), including State review of any such data;
- (2) The availability of capacity or energy from a qualifying facility during the system daily and seasonal peak periods, including:
 - (i) The ability of the utility to dispatch the qualifying facility;
 - (ii) The expected or demonstrated reliability of the qualifying facility;
 - (iii) The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for non-compliance;
 - (iv) The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of the utility's facilities;
 - (v) The usefulness of energy and capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;
 - (vi) The individual and aggregate value of energy and capacity from qualifying facilities on the electric utility's system; and
 - (vii) The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities; and
- (3) The relationship of the availability of energy or capacity from the qualifying facility as derived in paragraph (e)(2) of this section, to the ability of the electric utility to avoid costs, including the deferral of capacity additions and the reduction of fossil fuel use; and
- (4) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if the purchasing electric utility generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.

(f) *Periods during which purchases not required.*

(1) Any electric utility which gives notice pursuant to paragraph (f)(2) of this section will not be required to purchase electric energy or capacity during any period during which, due to operational circumstances, purchases from qualifying facilities will result in

costs greater than those which the utility would incur if it did not make such purchases, but instead generated an equivalent amount of energy itself.

(2) Any electric utility seeking to invoke paragraph (f)(1) of this section must notify, in accordance with applicable State law or regulation, each affected qualifying facility in time for the qualifying facility to cease the delivery of energy or capacity to the electric utility.

(3) Any electric utility which fails to comply with the provisions of paragraph (f)(2) of this section will be required to pay the same rate for such purchase of energy or capacity as would be required had the period described in paragraph (f)(1) of this section not occurred.

(4) A claim by an electric utility that such a period has occurred or will occur is subject to such verification by its State regulatory authority as the State regulatory authority determines necessary or appropriate, either before or after the occurrence.

§ 292.305 Rates for sales.

(a) *General rules.* (1) Rates for sales:

(i) Shall be just and reasonable and in the public interest; and

(ii) Shall not discriminate against any qualifying facility in comparison to rates for sales to other customers served by the electric utility.

(2) Rates for sales which are based on accurate data and consistent systemwide costing principles shall not be considered to discriminate against any qualifying facility to the extent that such rates apply to the utility's other customers with similar load or other cost-related characteristics.

(b) *Additional Services to be Provided to Qualifying Facilities.* (1) Upon request of a qualifying facility, each electric utility shall provide:

(i) Supplementary power;

(ii) Back-up power;

(iii) Maintenance power; and

(iv) Interruptible power.

(2) The State regulatory authority (with respect to any electric utility over which it has ratemaking authority) and the Commission (with respect to any nonregulated electric utility) may waive any requirement of paragraph (b)(1) of this section if, after notice in the area served by the electric utility and after opportunity for public comment, the electric utility demonstrates and the State regulatory authority or the Commission, as the case may be, finds that compliance with such requirement will:

(i) Impair the electric utility's ability to render adequate service to its customers; or

(ii) Place an undue burden on the electric utility.

(c) *Rates for sales of back-up and maintenance power.* The rate for sales of back-up power or maintenance power:

(1) shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities on an electric utility's system will occur simultaneously, or during the system peak, or both; and

(2) shall take into account the extent to which scheduled outages of the qualifying facilities can be usefully coordinated with scheduled outages of the utility's facilities.

§ 292.306 Interconnection costs.

(a) *Obligation to pay.* Each qualifying facility shall be obligated to pay any interconnection costs which the State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or nonregulated electric utility may assess against the qualifying facility on a nondiscriminatory basis with respect to other customers with similar load characteristics.

(b) *Reimbursement of interconnection costs.* Each State regulatory authority (with respect to any electric utility over which it has ratemaking authority) and nonregulated utility shall determine the manner for payments of interconnection costs, which may include reimbursement over a reasonable period of time.

§ 292.307 System emergencies.

(a) *Qualifying facility obligation to provide power during system emergencies.* A qualifying facility shall be required to provide energy or capacity to an electric utility during a system emergency only to the extent:

(1) Provided by agreement between such qualifying facility and electric utility; or

(2) Ordered under section 202(c) of the Federal Power Act.

(b) *Discontinuance of purchases and sales during system emergencies.* During any system emergency, an electric utility may discontinue:

(1) Purchases from a qualifying facility if such purchases would contribute to such emergency; and

(2) Sales to a qualifying facility, provided that such discontinuance is on a nondiscriminatory basis.

§ 292.308 Standards for operating reliability.

Any State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or nonregulated electric utility may establish reasonable standards to ensure system safety and reliability of interconnected operations. Such standards may be recommended by any electric utility, any qualifying facility, or any other person. If any State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or nonregulated electric utility establishes such standards, it shall specify the need for such standards on the basis of system safety and reliability.

Subpart D—Implementation

§ 292.401 Implementation by State regulatory authorities and nonregulated electric utilities.

(a) *State regulatory authorities.* Not later than one year after these rules take effect, each State regulatory authority shall, after notice and an opportunity for public hearing, commence implementation of Subpart C (other than § 292.302 thereof). Such implementation may consist of the issuance of regulations, an undertaking to resolve disputes between qualifying facilities and electric utilities arising under Subpart C, or any other action reasonably designed to implement such subpart (other than § 292.302 thereof).

(b) *Nonregulated electric utilities.* Not later than one year after these rules take effect, each nonregulated electric utility shall, after notice and an opportunity for public hearing, commence implementation of Subpart C (other than § 292.302 thereof). Such implementation may consist of the issuance of regulations, an undertaking to comply with Subpart C, or any other action reasonably designed to implement such subpart (other than § 292.302 thereof).

(c) *Reporting requirement.* Not later than one year after these rules take effect, each State regulatory authority and nonregulated electric utility shall file with the Commission a report describing the manner in which it will implement Subpart C (other than § 292.302 thereof).

§ 292.402 Implementation of certain reporting requirements.

Any electric utility which fails to comply with the requirements of § 292.302(b) shall be subject to the same penalties to which it may

be subjected for failure to comply with the requirements of the Commission's regulations issued under section 133 of PURPA.

§ 292.403 Waivers.

(a) *State regulatory authority and nonregulated electric utility waivers.* Any State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or nonregulated electric utility may, after public notice in the area served by the electric utility, apply for a waiver from the application of any of the requirements of Subpart C (other than § 292.302 thereof).

(b) *Commission action.* The Commission will grant such a waiver only if an applicant under paragraph (a) of this section demonstrates that compliance with any of the requirements of Subpart C is not necessary to encourage cogeneration and small power production and is not otherwise required under section 210 of PURPA.

Subpart F—Exemption of Qualifying Small Power Production Facilities and Cogeneration Facilities from Certain Federal and State Laws and Regulations

§ 292.601 Exemption to qualifying facilities from the Federal Power Act.

(a) *Applicability.* This section applies to:

- (1) qualifying cogeneration facilities; and
- (2) qualifying small power production facilities which have a power production capacity which does not exceed 30 megawatts.

(b) *General rule.* Any qualifying facility described in paragraph (a) shall be exempt from all sections of the Federal Power Act, except:

- (1) Sections 1–30;
- (2) Sections 202(c), 210, 211, and 212;
- (3) Sections 305(c); and
- (4) Any necessary enforcement provision of Part III with regard to the sections listed in paragraphs (b) (1), (2) and (3) of this section.

§ 292.602 Exemption to qualifying facilities from the Public Utility Holding Company Act and certain State law and regulation.

(a) *Applicability.* This section applies to any qualifying facility described in § 292.601(a), and to any qualifying small power production facility with a power production capacity over 30 megawatts if such facility produces electric energy solely by the use of biomass as a primary energy source.

(b) *Exemption from the Public Utility Holding Company Act of*

1935. A qualifying facility described in paragraph (a) shall not be considered to be an "electric utility company" as defined in section 2(a)(3) of the Public Utility Holding Company Act of 1935, 15 U.S.C. 79b(a)(3).

(c) *Exemption from certain State law and regulation.*

(1) Any qualifying facility shall be exempted (except as provided in paragraph (c)(2)) of this section from State law or regulation respecting:

(i) The rates of electric utilities; and

(ii) The financial and organizational regulation of electric utilities.

(2) A qualifying facility may not be exempted from State law and regulation implementing Subpart C.

(3) Upon request of a State regulatory authority or nonregulated electric utility, the Commission may consider a limitation on the exemptions specified in subparagraph (1).

(4) Upon request of any person, the Commission may determine whether a qualifying facility is exempt from a particular State law or regulation.

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Appendix 3

Electricity Generated by Oil

GEOGRAPHICAL LOCATION	ELECTRICITY GENERATED BY OIL (10 ⁹ kwh)	TOTAL ELECTRICITY GENERATED (10 ⁹ kwh)	ELECTRICITY GENERATED BY OIL (%)
Northeast	3.91	6.66	59
Maine	0.10	0.58	17
N.H.	0.18	0.47	38
Vt.		0.38	
Mass.	2.62	3.05	86
R.I.	0.04	0.09	44
Conn.	0.96	2.10	46
Middle Atlantic	5.66	24.35	23
N.Y.	3.57	10.13	35
N.J.	0.88	3.33	26
Pa.	1.20	10.89	11
East North Central	1.44	36.09	4
Ohio	0.12	9.58	1
Ind.	0.04	6.47	1
Ill.	0.83	9.95	8
Mich.	0.43	6.77	6
Wis.	0.03	3.33	1
West North Central	0.15	16.40	1
Minn.	0.02	2.49	1
Iowa	0.01	1.82	1
Mo.	0.04	5.23	1
N.Dak.		1.49	
S.Dak.		0.94	
Nebr.		1.66	
Kans.	0.08	2.77	3
South Atlantic	7.58	39.37	19
Del.	0.37	0.67	55
Md.	0.47	3.08	15
D.C.	0.10	0.10	100
Va.	0.98	3.27	30
W.Va.	0.03	5.70	*

SOURCE: Energy Information Administration, *Electric Power Monthly*, August, 1980.

*Indicates less than 1%.

GEOGRAPHICAL LOCATION	ELECTRICITY GENERATED BY OIL (10 ⁹ kwh)	TOTAL ELECTRICITY GENERATED (10 ⁹ kwh)	ELECTRICITY GENERATED BY OIL (%)
N.C.	0.05	6.26	1
S.C.	0.41	3.89	11
Ga.	0.15	6.49	2
Fla.	5.03	9.91	51
East South Central	0.47	20.49	2
Ky.	0.01	5.23	*
Tenn.	0.02	5.34	*
Ala.	0.01	7.77	*
Miss.	0.44	2.15	20
West South Central	1.19	33.56	4
Ark.	0.44	2.41	18
La.	0.64	4.82	13
Okla.		4.85	
Tex.	0.11	21.48	*
Mountain	0.34	14.70	2
Mont.		1.30	
Idaho		0.67	
Wyo.		1.96	
Colo.	0.02	2.22	1
N.Mex.	0.01	2.34	*
Ariz.	0.14	3.84	4
Utah		1.09	
Nev.	0.16	1.28	13
Pacific Contiguous	3.54	23.06	15
Wash.		6.36	
Oreg.		2.93	
Calif.	3.53	13.77	26
Pacific Noncontiguous	0.58	0.77	75
Alaska	0.03	0.22	14
Hawaii	0.55	0.55	100
U.S. Total	24.85	215.44	12

Appendix 4

Twenty-Five Most Expensive and Twenty-Five Least Expensive Service Territories

Most Expensive Service Territories

CITY AND STATE	NAME OF COMPANY	1,500 KWH* TOTAL COST (\$)	AVERAGE COST (\$/kwh)	RANKING
New York, N.Y.	Consolidated Edison of New York	228.88	15.26	1
Lihue, Hawaii	Kauai Electric	226.68	15.11	2
Nantucket, Mass.	Nantucket Electric	209.03	13.94	3
Wailuku, Hawaii	Maui Electric	207.79	13.85	4
Middletown, N.Y.	Orange & Rockland Utilities	205.68	13.71	5
Honolulu, Hawaii	Hawaiian Electric	184.74	12.32	6
Hilo, Hawaii	Hawaii Electric Light	178.54	11.90	7
Long Island, N.Y.	Long Island Lighting	175.16	11.68	8
San Diego, Calif.	San Diego Gas & Electric	173.19	11.55	9
Ramsey, N.J.	Rockland Electric	162.69	10.85	10
Wilmington, Del.	Delmarva Power & Light	155.79	10.39	11
Bridgeport, Conn.	United Illuminating	155.55	10.37	12
Chincoteague, Va.	Delmarva Power & Light	153.60	10.24	13
Poughkeepsie, N.Y.	Central Hudson Gas & Electric	152.84	10.19	14
Fitchburg, Mass.	Fitchburg Gas & Electric Light	148.68	9.91	15
Manchester, N.H.	Public Service of New Hampshire	148.54	9.90	16
Boston, Mass.	Boston Edison	148.42	9.89	17
Philadelphia, Pa.	Philadelphia Electric	144.48	9.63	18
Manchester, Mass.	Manchester Electric	143.53	9.57	19
Dover, N.J.	Jersey Central Power & Light	142.78	9.52	20
Chicago, Ill.	Commonwealth Edison	142.76	9.52	21
Elkton, Md.	Conowingo Power	141.14	9.41	22
Hartford, Conn.	Hartford Electric Light	140.66	9.38	23
Brockton, Mass.	Eastern Edison	138.93	9.26	24
Cleveland, Ohio	Cleveland Electric Illuminating	138.60	9.24	25

* Total cost = 500 kwh per month (June 1982, July 1982, August 1982).

Least Expensive Service Territories

CITY AND STATE	NAME OF COMPANY	1,500	AVERAGE	RANKING
		KWH* TOTAL COST (\$)	COST (¢/kwh)	
Noxon, Mont.	Washington Water	30.00	2.00	218
Kalispell, Mont.	Pacific Power & Light	32.70	2.18	217
Spokane, Wash.	Washington Water Power	34.15	2.28	216
Yakima, Wash.	Pacific Power & Light	41.78	2.79	215
Bellevue, Wash.	Puget Sound Power & Light	42.76	2.85	214
LaGrande, Oreg.	CP National	44.07	2.94	213
Ontario, Oreg.	Idaho Power	45.48	3.03	212
Lewiston, Idaho	Washington Water Power	45.75	3.05	211
Portland, Oreg.	Pacific Power & Light	46.17	3.08	210
Cheyenne, Wyo.	Cheyenne Light, Fuel & Power	47.91	3.19	209
Portland, Oreg.	Portland General Electric	50.57	3.37	208
Billings, Mont.	Montana Power	51.42	3.43	207
Siskiyou County, Calif.	Pacific Power & Light	54.03	3.60	206
Casper, Wyo.	Pacific Power & Light	58.56	3.90	205
Franklin, N.C.	Nantahala Power & Light	63.30	4.22	204
Boise, Idaho	Idaho Power	64.60	4.31	203
Rexburg, Idaho	Utah Power & Light	70.82	4.72	202
Gravette, Ark.	Empire District Electric	72.51	4.83	201
Rapid City, S.Dak.	Black Hills Power & Light	73.25	4.88	200
Ashland, Ky.	Kentucky Power	75.12	5.01	199
Flint, Mich.	Consumer's Power	77.48	5.17	198
North Sioux City, S.Dak.	Idaho Public Service	78.21	5.21	197
Las Vegas, Nev.	Nevada Power	78.30	5.22	196
Kingsport, Tenn.	Kingsport Power	78.59	5.24	195
Marietta, Ohio	Monongahela Power	79.02	5.27	194

* Total cost = 500 kwh per month (June 1982, July 1982, August 1982).

Appendix 5

Cost-of-Service Data for Selected Utilities

TABLE A5-1

FERC Rules, Section 292.302, Implementing Section 210 of PURPA
The Estimated Avoided Cost on the Electric Utility's System,
Solely with Respect to the Energy Component

	1982	1983	1984	1985	1986	1987
Jan.	0.988	1.721	2.237	2.492	2.759	3.054
Feb.	1.015	1.768	2.298	2.560	2.834	3.137
Mar.	0.988	1.721	2.237	2.492	2.759	3.054
Apr.	0.947	1.650	2.145	2.390	2.646	2.929
May	0.938	1.634	2.124	2.366	2.619	2.899
June	0.822	1.432	1.862	2.074	2.296	2.542
July	0.816	1.421	1.847	2.058	2.278	2.522
Aug.	0.816	1.421	1.847	2.058	2.278	2.522
Sept.	0.872	1.519	1.975	2.200	2.435	2.696
Oct.	1.512	1.966	2.190	2.424	2.683	2.970
Nov.	1.519	1.975	2.200	2.435	2.696	2.984
Dec.	<u>1.721</u>	<u>2.237</u>	<u>2.492</u>	<u>2.759</u>	<u>3.054</u>	<u>3.381</u>
Average	1.081	1.706	2.127	2.358	2.611	2.890

NOTE: All figures are cents per kwh in nominal dollars. Figures shown are BPA minimum energy costs with the following escalation rates assumed: Oct. 1982, 74.2%; Oct. 1983, 30%; Oct. 1984, 11.4%; Oct. 1985, 10.7%; Oct. 1986, 10.7%; Oct. 1987, 10.7% (from 1982 Revenue Needs Analysis Data). The above escalation rates were based on a computer model that used information that was available in May 1982.

TABLE A5-2
FERC Rules, Section 292.302, Implementing Section 210 of PURPA
The Estimated Capacity Costs at Completion of the Planned
Capacity Additions . . . and the Associated Energy Costs
of Each Unit . . .

PLANT	CAPACITY COSTS (\$/Kw)*	ENERGY COSTS (¢/kwh)†	ON-LINE
Centralia (coal, 105 Mw)	190	1.2	1983‡
South Fork Tolt (hydro, 15 Mw)	2,103	0.48	1985
High Ross (hydro, 254 Mw)	923	0.02	1986

*Capacity costs are expressed in the dollars of the on-line year.
†Energy costs are 1981 dollars.
‡Seattle City Light began accepting energy and capacity from Centralia in 1983.
The project was built in 1972. Capacity costs of Centralia are in 1972 dollars.

TABLE A5-3
Houston Lighting and Power Company
Schedule 302 (b) (1)
Estimates of Avoided Energy Costs for Purchases
of 100 Mw
(¢/kwh)

YEAR	SUMMER		WINTER ALL HOURS
	ON-PEAK	OFF-PEAK	
1982	5.03	4.41	4.79
1983	5.91	4.98	5.39
1984	6.65	5.59	5.74
1985	12.51	9.77	10.74
1986	10.79	8.62	9.03
1987	10.85	8.80	10.08

NOTES: Energy costs are in current (as-spent) dollars. All costs are shown at the generation level.

A number of individual factors shall be considered and evaluated in determining the company's avoided costs. These factors are set forth in § 292.304 (e) of the regulations of the Federal Energy Regulatory Commission. The data provided in this schedule are merely estimates. They are not intended to represent rates for future purchases by the company from qualifying facilities.

Avoided cost estimates were also developed for purchases of 500 Mw and 1,000 Mw. These costs were slightly lower than the above.

TABLE A5-4
Houston Lighting and Power Company
Schedule 302 (b) (3)
Estimated Capacity and Energy Costs for Planned
Capacity Additions and Firm Purchases

YEAR OF COMMISSIONING	UNIT NAME	CAPACITY COST (\$/Kw)* ¹	ENERGY COST (¢/Kwh) ²
	Planned Purchases ³	22	4.50
1983	W. A. Parish 8	680	4.45
	Deepwater Lowside ⁴	...	9.11
1986	Limestone 1	1,153	3.94
1987	South Texas 1	1,840	1.09
	Limestone 2	1,153	4.15
1988	Malakoff 1	1,460	3.64
1989	South Texas 2	1,840	1.20
	Malakoff 2	1,460	3.89
1991	A 1	1,472	8.63

* In as-spent \$/kw of gross capability.

¹All capacity costs exclude AFUDC.

²At maturity date in as-spent dollars. Maturity occurs within the third year of operation.

³For 1982 purchases in \$/kw per year.

⁴A rehabilitation project.

Appendix 6

Source List: Equipment and Publications

Cogeneration Equipment

Agway Inc.
Box 4933
Syracuse, NY 13221
(315) 477-7061

Alturdyne
8050 Armour St.
San Diego, CA 92111
(619) 565-2131

Caterpillar Engine
Peterson Power Center
2828 Teagarden St.
San Leandro, CA 94577
(415) 895-8400

Cogenic Energy Systems
645 Fifth Ave.
New York, NY 10022
(212) 832-6767

Cummins Engine Co.
1000 Fifth St.
Columbus, IN 47202
(812) 372-7211

Dresser Industries
Waukesha Engine Division
1000 St. Paul Ave.
Waukesha, WI 53187
(414) 547-3311

Kohler Co.
Kohler, WI 53044
(414) 457-4441

Re-Energy Systems, Inc.
660 W. Baltimore Pike
Media, PA 19063
(215) 565-9779

White Engine Co.
101 Eleventh St., SE
Canton, OH 44707
(216) 454-5631

Hydro Equipment

Allis-Chalmers
Hydro Turbines Division
Box 712
York, PA 17405
(717) 792-3511

Associated Electric Co., Inc.
54 Second Ave.
Chicopee, MA 01020
(413) 781-1053

Barber Hydraulic Turbines
Div. of Marsh Engineering Ltd.
Barber Point, P.O. Box 340
Port Colborne, ON L3K 5W1
Canada
(416) 834-9303

Canyon Industries, Inc.
5346 Mosquito Lake Rd.
Deming, WA 98244
(206) 592-5552

Cornell Pump Co., Inc.
2323 S.E. Harvester Dr.
Portland, OR 97222
(503) 653-0330

Energy Research and
Applications, Inc.
1820 Fourteenth St.
Santa Monica, CA 90404
(213) 452-4905

Essex Turbines Co., Inc.
Kettle Cove Industrial Park
Magnolia, MA 01930
(617) 525-2011

Hydro Watt Systems, Inc.
146 Siglun Rd.
Coos Bay, OR 97420
(503) 267-3559

McKay Water Power, Inc.
P.O. Box 221
West Lebanon, NH 03784
(603) 298-5122

New England Energy
Development Systems,
Inc. (NEEDS)
109 Main St.
Amherst, MA 01002
(413) 256-8466

New Found Power Co., Inc.
Box 576
Hope Valley, RI 02832
(401) 539-2335

The Schneider Engine Co.
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Justin, TX 76247
(817) 430-0174

Small Hydro-Electrics
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Silverton, BC V0G 280
Canada
(604) 358-2406

Worthington Division
McGraw-Edison Co.
5310 Taneytown Pike
Taneytown, MD 21787
(301) 756-2602

Photovoltaic Modules and Arrays

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Mountain View, CA 94042
(415) 964-3200

ARCO Solar Industries, Inc.
20554 Plummer St.
Chatsworth, CA 91311

International Rectifier Inc.
233 Kansas St.
El Segundo, CA 90245
(213) 322-3331

Photon Power Inc.
13 Founders Rd.
El Paso, TX 79906
(915) 779-7774

Solarex Corp.
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Rockville, MD 20850
(301) 948-0202

Solar Power Corp.
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Woburn, MA 01801
(617) 935-4600

Solarwest Electric
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Santa Barbara, CA 93101
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Solec International Inc.
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Hawthorne, CA 90250
(213) 970-0065

Utility Interface Hardware

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Providence, RI 02901
(401) 421-5033

Beckwith Electric Co.
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Largo, FL 33543
(813) 535-3408

Best Energy Systems for
Tomorrow, Inc.
P.O. Box 280
Necedah, WI 54646
(608) 565-7200

Carter Motor Co.
2711 W. George St.
Chicago, IL 60618
(312) 588-7700

Climet Instruments Co.
1320 W. Colton Ave.
Redlands, CA 92373
(714) 793-2788

Danforth Co.
500 Riverside Industrial Pkwy.
Portland, ME 04103
(207) 797-2791

Davis Instrument Manufacturing
Co., Inc.
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Baltimore, MD 21218
(301) 243-4301

Dwyer Instruments Inc.
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Michigan City, IN 46360
(219) 872-9141

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Seattle, WA 98119
(206) 282-1000

Electro Sales Co., Inc.
100 Fellsway West
Somerville, MA 02145
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Elgar Corp.
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San Diego, CA 92111
(619) 565-1155

Natural Power Inc.
Francestown Turnpike
New Boston, NH 03070
(603) 487-5512

Newark Electronics Corp.
500 N. Pulaski Rd.
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Northwest Water Power Systems
P.O. Box 19183
Portland, OR 97219
(503) 288-1297

North Wind Power Co.
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Moretown, VT 05660
(802) 496-2955

Nova Electric Manufacturing Co.
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(201) 661-3434

PACS Industries, Inc.
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61 Steamboat Rd.
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(516) 829-9060

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Seattle, WA 98107
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(203) 929-6363

Soleq Corp.
5969 N. Elston Ave.
Chicago, IL 60646
(312) 792-3811

Wilmore Electronics Co., Inc.
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Hillsborough, NC 27278
(919) 732-9351

Windworks, Inc.
Box 44-A, Rt. 3
Mukwonago, WI 53149
(414) 363-4088

Wind-Driven Generators

Aeolian Energy, Inc.
R.D. 4
Ligonier, PA 15658
(412) 593-7905

Aerolite Inc.
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550 Russells Mills Rd.
South Dartmouth, MA 02748
(617) 993-9999

Aerowatt, S.A.
c/o Automatic Power, Inc.
P.O. Box 18738
Houston, TX 77223
(713) 228-5208

American Energy Savers, Inc.
912 St. Paul Rd.
Box 1421
Grand Island, NE 68802
(308) 382-1831

Astral/Wilcon Co. Inc.
(also known as A.W.I.)
P.O. Box 291
Millbury, MA 01527
(617) 865-9570

Bergey Wind Power Co., Inc.
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Norman, OK 73069
(405) 364-4212

Bertoia Studio Ltd.
644 Main St.
Bally, PA 19503
(215) 845-7096

Bircher Machine, Inc.
Box 97
Kanopolis, KS 67454
(913) 472-4413

Carter Wind Systems, Inc.
Box 405-A, Rt. 1
Burkburnett, TX 76354
(817) 569-2238

DAF Indal Ltd.
3570 Hawkestone Rd.
Mississauga, ON L5C 2V8
Canada
(416) 272-5300

Dunlite Electrical Products
Enertech Corp.
P.O. Box 420
Norwich, VT 05055
(802) 649-1145

Elfin Corp.
550 Chippenhook Rd.
Wallingford, VT 05773
(802) 446-2575

Energy Science, Inc.
P.O. Box 3009
Boulder, CO 80307
(303) 449-3559

Enertech Corp.
P.O. Box 420
Norwich, VT 05055
(802) 649-1145

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Copemish, MI 49625
(616) 378-2921
(616) 378-2922

Fayette Manufacturing
Corporation
Box 1149
Tracy, CA 95376
(415) 443-2929

FloWind Corp.
21414 Sixty-eighth Ave., South
Kent, WA 98032
(206) 872-8500

Forecast Industries Inc.
3500 A Indian School Rd., NE
Albuquerque, NM 87106
(505) 265-3707

Jacobs Wind Electric
2720 Fernbrook Ln.
Minneapolis, MN 55401
(612) 559-9361

Kaman Aerospace Corp.
Old Windsor Rd.
Bloomfield, CT 06002
(203) 242-4461

Natural Energy Systems
Unlimited
P.O. Box 60832
Rochester, NY 14606
(716) 458-9402

North Wind Power Co.
P.O. Box 556
Moretown, VT 05660
(802) 496-2955

Pinson Energy Corp.
Box 7
Marstons Mills, MA 02648
(617) 428-8535

PM Wind Power Inc.
P.O. Box 89
Mentor, OH 44060
(216) 255-3437

Power Group International,*Inc.
12306 Rip Van Winkle
Houston, TX 77024
(713) 444-5000

Product Development Institute,
Inc.
4445 Talmadge Rd.
Toledo, OH 43623
(419) 472-2136

Sencenbaugh Wind Electric
253 Polaris
Mountain View, CA 94043
(415) 964-1593

Tumac Industries, Inc.
650 Ford St.
Colorado Springs, CO 80915
(303) 596-4400

Winco Division of Dyna
Technology
7850 Metro Pkwy.
Minneapolis, MN 55420
(612) 853-8400

Wind Engineering Corp.
P.O. Box 5936
Lubbock, TX 79417
(806) 763-3182

Windmaster Corp.
106 K St., Suite 200
Sacramento, CA 95814
(916) 443-0511

Wind Master Corp.
55 Veterans Blvd.
Carlstadt, NJ 07072
(201) 933-3338

Wind Power Systems, Inc.
8630 Production Ave.
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(619) 566-1806

Windstar Corp.
Box 151
Walled Lake, MI 48088
(313) 624-5597

Windworks, Inc.
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Mukwonago, WI 53149
(414) 363-4088

Winpower Corp.
1207 First Ave., East
Newton, IA 50208
(515) 792-1301

Zephyr Wind Dynamo Co., Inc.
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Brunswick, ME 04011
(207) 725-6534

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Tehachapi, CA 93561
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Appendix 7

States' Cogeneration Rate-Setting under PURPA

These listings represent the current status of PURPA-related rate setting as of May 1983. While the rates and terms listed below are specific for cogeneration systems, they are also relevant for photovoltaic, windpower and hydropower systems. For further information on all systems, you can contact your state Public Utilities Commission (PUC) or Public Service Commission (PSC).

STATE	STATUS	RATES
Ala.	Rates adopted for facilities producing 100 kw or less. Larger facilities negotiate with utilities.	Ala. Power Co.: For producers of 100 kw or less: Standard rate is 2.46¢/kwh through Oct., and 2.42¢/kwh Nov. through May. Time-of-day rate is 2.96¢/kwh peak and 2.46¢/kwh off-peak June through Oct., and 2.68¢/kwh peak and 2.42¢/kwh off-peak Nov. through May.
Alaska	Final rules issued. Utilities have begun filing proposed rates. Some rates have been approved; remainder should be approved this summer.	(for nonfirm producers of less than 100 kw) Arctic Utilities (approved): 11.40¢/kwh. Kodiak Elec. Assn. (approved): 7.591¢/kwh. Chugach Elec. Assn. Inc. (proposed): 0.685¢/kwh.
Ariz.	Final rules issued. Rates in effect but subject to Ariz. Corp. Com. investigation.	Ariz. Pub. Ser. Co.: Summer: 4.255¢/kwh peak, 1.986¢/kwh off-peak. Winter: 3.414¢/kwh peak, 2.028¢/kwh off-peak. Firm power suppliers receive an additional 10%.
Ark.	Final rules issued. Ark. Power & Light asked PSC to seek waiver of FERC rules requiring full avoided-cost payments, and has interim rates in effect not based on avoided costs.	Ark. Power & Light Co.: Summer: 3.531¢/kwh peak, 3.080¢/kwh off-peak. Winter: 3.127¢/kwh peak, 2.953¢/kwh off-peak.

NOTE: Abridged and reprinted from "States' Cogeneration Rate-Setting under PURPA, Part 1 and Part 2," *Energy User News*, 23 May 1983, pp. 16-17, and 30 May 1983, pp. 17-18, with permission of *Energy User News*, 7 E. Twelfth St., New York, NY 10003.

STATE	STATUS	RATES
Calif.	Final rules issued. Workshops to consider standard long-term contract offers are expected to be held in July.	Rates are reviewed quarterly. Capacity credits vary with length of contract; capacity credits listed are 20-yr contracts. Pacific Gas & Elec.: 4.40¢/kwh, capacity \$110/kw/yr. Southern Calif. Edison: 4.02¢/kwh, capacity \$114/kw/yr. San Diego Gas & Elec.: 6.45¢/kwh, capacity \$93/kw/yr.
Colo.	Final rules issued. Utilities have filed proposed rates; PUC has begun proceeding to determine whether rates comply with rules.	Pub. Ser. Co. of Colo. (proposed): 1.77¢/kwh, capacity, \$15.33/kw/mo.
Conn.	Final rules issued.	Conn. Light & Power Co.: Formula applies multipliers to utility's monthly average fossil fuel costs. Payments currently about 5¢/kwh. Firm power: 117% peak, 92% off-peak. Nonfirm power: 114% peak, 89% off-peak.
Del.	Final rules issued.	Delmarva Power & Light Co.: Summer: 6.37¢/kwh peak, 3.16¢/kwh off-peak. Winter: 6.25¢/kwh peak, 3.73¢/kwh off-peak.
D.C.	Final rules issued. Rates proposed.	Potomac Elec. Power Co.: Utility price offers range from 2.39 to 5.59¢/kwh.
Fla.	Rules issued, but new rules expected to be adopted by Aug., after PSC considers capacity payments. Recent Fla. court order overturning PSC rules has been appealed; rules remain in effect pending outcome of appeal.	For facilities producing over 100 kw: Fla. Power Corp.: 6.29¢/kwh peak, 4.66¢/kwh off-peak; Fla. Power & Light Co.: 5.02¢/kwh peak, 4.26¢/kwh off-peak; Gulf Power Co.: 3.52¢/kwh peak, 2.16¢/kwh off-peak; Tampa Elec. Co.: 4.20¢/kwh peak, 3.72¢/kwh off-peak. In addition, capacity payments may be negotiated if facility has annual availability of 70% or more.
Ga.	Final rules issued.	Savannah Elec. Power Co.: Summer: 4.08¢/kwh peak, 2.96¢/kwh off-peak. Winter: 2.68¢/kwh, all periods.
Hawaii	Final rules issued.	Hawaiian Elec. Co.: 6 to 6.60¢/kwh.
Idaho	Final rules and rates adopted. Idaho Power has asked PUC to lower payments and has filed lawsuit challenging PUC's authority to require and approve long-term contracts.	Power is sold under contract, with price updated annually to reflect coal prices. Capacity payments vary with length of contract; rates listed are for 20-yr contracts. Idaho Power Co.: 1.63¢/kwh; capacity, \$232/kw/yr. Wash. Water Power Co.: 1.60¢/kwh; capacity, \$202/kw/yr. Utah Power & Light Co.: 1.20¢/kwh; capacity, \$188/kw/yr.

STATE	STATUS	RATES
Ill.	Final rules issued. Rates expected to be revised by 30 June.	Commonwealth Edison: Summer: 5.31¢/kwh peak, 2.90¢/kwh off-peak. Winter: 5.17¢/kwh peak, 3.37¢/kwh off-peak. Iowa-Ill. Gas & Elec.: Summer: 2.30¢/kwh peak, 1.19¢/kwh off-peak. Winter: 2.38¢/kwh peak, 1.28¢/kwh off-peak. South Beloit Water, Gas & Elec. Co.: 2.65¢/kwh peak, 1.93¢/kwh off-peak.
Ind.	Rules and rates approved, but may change after hearings in May.	Northern Ind. Pub. Ser. Co. Rates range from 2.46¢/kwh winter off-peak to 3.33¢/kwh summer peak. Pub. Ser. Co. of Ind.: 1.330¢/kwh.
Iowa	Final rules issued; rates now being investigated.	Iowa Pub. Ser. Co.: Option A: 1.82¢/kwh. Option B: 2.03¢/kwh peak, 1.64¢/kwh off-peak. Iowa-Ill. Gas & Elec.: Option A: 1.88¢/kwh summer, 1.63¢/kwh winter. Option B: Rates range from 1.29¢/kwh winter off-peak to 2.55¢/kwh summer peak. Capacity payment determined by formula involving kwh delivered during peak, and utility's cost to borrow power from power pool.
Kans.	Kans. Corp. Com. issued final rules requiring utilities to file rates. Kans. City Power & Light Co. lawsuit challenging the authority of the Kans. Corp. Com. to require long-term contracts expected to be heard by State Supreme Court.	Kans. Gas & Elec. Co.: Rates equal to utility's total cost of fuel and purchased power as determined by monthly energy adjustment clause. Average rates currently 2 to 2.5¢/kwh. Capacity payments determined by formula.
Ky.	Final rules issued. Rates proposed.	Ky. Utilities Co.: 1.5¢/kwh. Louisville Gas & Elec.: 1.7¢/kwh.
La.	Final rules issued. Utilities must file standard tariff rates and avoided costs by late May.	Not available.
Maine	Final rules issued.	Revised periodically in fuel adjustment proceedings. Rates listed are for June. Central Maine Power Co.: 4.6¢/kwh peak, 3.7¢/kwh off-peak. Bangor Hydroelec. Co. (for producers of 1,000 kw or less): 4.0¢/kwh peak, 3.3¢/kwh off-peak.
Md.	Final rules issued. Filings approved for most utilities; further hearings to be held	Potomac Elec. Power Co.: Rates range from 2.641¢/kwh for winter off-peak to 5.276¢/kwh for summer peak. Potomac

STATE	STATUS	RATES
Md. (continued)	to consider capacity payments.	Md. Edison Co.: 1.57¢/kwh. Delmarva Power & Light Co.: Rates range from 2.52¢/kwh winter off-peak to 4.22¢/kwh summer peak. Baltimore Gas & Elec. Co.: Rates range from 1.98¢/kwh winter off-peak to 5.97¢/kwh summer peak.
Mass.	Final rules issued. Rates proposed.	Western Mass. Elec.: 5.06¢/kwh peak and 4.36¢/kwh off-peak, or a flat 4.70¢/kwh. Mass. Elec.: 4.92¢/kwh peak and 3.32¢/kwh off-peak, or a flat 4.07¢/kwh. Boston Edison Co.: 5.22¢/kwh peak and 3.79¢/kwh off-peak, or a flat 4.45¢/kwh.
Mich.	Final rules issued.	For nonfirm power: 3.0¢/kwh. For firm power: 5 to 6¢/kwh (including capacity payment).
Minn.	Final rules issued. Utilities have until 24 June to file rates.	Northern States Power (100 kw or less): Option A: 2.67¢/kwh peak, 1.66¢/kwh off-peak. Under Option B, rates depend on length of contract signed, and are adjusted each yr. Option B rates for 1982 range from 2.28¢/kwh for a 5-yr contract to 3.40¢/kwh for a 25-yr contract.
Miss.	No rules issued or rates approved.	Not available.
Mo.	Final rules issued. Utilities filed rates ranging from 1.5 to 5.0¢/kwh, which have been suspended pending an investigation. Only Kans. City Power & Light Co.'s rates have been approved to date.	Kans. City Power & Light Co. (for nonfirm producers of under 100 kw): 1.63¢/kwh.
Mont.	PSC issued final rules, but will review rules and rate methodology in hearings beginning 21 June. Mont. Power Co. filed motion to dismiss new proceeding, saying PSC lacks authority.	(Long-term rate requires 4-yr contract.) Mont. Power Co.: 2.34¢/kwh short-term power, 4.09¢/kwh long-term power, 6.74¢/kwh peak. Pacific Power & Light Co.: 7.76¢/kwh short-term peak, 1.84¢/kwh short-term off-peak, 6.05¢/kwh long-term peak, 4.03¢/kwh long-term off-peak. Mont.-Dak. Utilities Co.: 2.16¢/kwh short-term, 5.58¢/kwh long-term, 5.53¢/kwh peak.
Nebr.	Nebr. has 166 municipal and 4 cooperative utilities, which are not regulated by any state body and set their own cogeneration rates and rules.	Omaha Pub. Dist. (for producers of 100 kw or less): Summer: 1.60¢/kwh peak and 1.00¢/kwh off-peak, or flat 1.10¢/kwh. Winter: 1.20¢/kwh peak and 1.00¢/kwh off-peak, or flat 1.10¢/kwh.

STATE	STATUS	RATES
Nev.	Rules issued.	Nev. Power Co.: Summer: 3.81¢/kwh peak, 2.33¢/kwh off-peak. Winter: 2.99¢/kwh peak, 2.27¢/kwh off-peak. Capacity payments available to reliable facilities that meet certain conditions. Capacity payment \$7.65/kw peak, 24¢/kw off-peak.
N.H.	Rules and rates issued, but rate revision hearings to be held this summer.	7.7¢/kwh. 8.2¢/kwh for reliable facilities (7.7¢/kwh for energy plus 0.5¢/kwh for capacity).
N.J.	Final rules issued. Further hearings may be held.	Energy payments equal 110% of rate utilities pay for power from Pa.-N.J.-Md. power pool. Capacity payments also tied to power pool rates. Pub. Ser. Elec. & Gas Co.: rates range from 3.697¢/kwh winter off-peak to 8.14¢/kwh summer peak. Capacity, \$30.66/kw/yr. Atlantic City Elec. Co.: 5.36¢/kwh guaranteed minimum. Capacity, \$30.66/kw/yr.
N.Mex.	Rules issued.	(for producers of 100 kw or less) Pub. Ser. Co. of N. Mex.: Primary voltage (power bought at 12.6 kv): Summer: 4.89¢/kwh peak and 2.99¢/kwh off-peak, or flat 3.47¢/kwh. Winter: 4.95¢/kwh peak and 4.05¢/kwh off-peak or flat 3.83¢/kwh. Secondary voltage (power bought at less than 12.6 kv): Summer: 5.23¢/kwh peak and 3.23¢/kwh off-peak, or flat 3.66¢/kwh. Winter: 5.24¢/kwh peak and 4.33¢/kwh off-peak, or flat 4.01¢/kwh.
N.Y.	PSC issued final order in case of Con Ed Co. of N.Y. Inc. and approved Con Ed's rates. Other utilities filed rates based on this order; other utilities' rates expected to be approved by end of summer. Con Ed is challenging PSC rules in state court.	State law sets minimum average of 6¢/kwh. Rates listed are proposed, except for Con Ed's, which are approved. Con Ed (over 900 kw, low-tension service): Summer: 12.37¢/kwh peak, 4.77¢/kwh off-peak. Winter: 6.57¢/kwh peak, 4.37¢/kwh off-peak. Niagara Mohawk Power: 5.46¢/kwh peak (includes capacity payment), 4.00¢/kwh off-peak. Orange & Rockland Utilities: Summer: 6.733¢/kwh peak (includes capacity payment), 4.179¢/kwh off-peak. Winter: 5.408¢/kwh peak, 4.836¢/kwh off-peak. Central Hudson Gas & Elec. (rates include capacity payments): Secondary voltage: 9.98¢/kwh summer peak, 7.57¢/kwh winter peak, 5.84¢/kwh spring/fall peak, 4.29¢/kwh off-peak. Primary voltage: 10.64¢/kwh summer peak, 8.10¢/kwh winter peak, 6.27¢/kwh spring/fall peak, 4.58¢/kwh off-peak. Transmission

STATE	STATUS	RATES
N.Y. (continued)		voltage: 10.12¢/kwh summer peak, 7.68¢/kwh winter peak, 5.92¢/kwh spring/fall peak, 4.45¢/kwh off-peak.
N.C.	Final rules issued. Proposed new rates now being reviewed; approval expected in June.	(proposed) Carolina Power & Light Co.: 4.25¢/kwh peak, 2.73¢/kwh off-peak. 5-yr contract: 4.93¢/kwh peak, 3.08¢/kwh off-peak. 10-yr contract: 5.98¢/kwh peak, 3.62¢/kwh off-peak. 15-yr contract: 7.68¢/kwh peak, 4.49¢/kwh off-peak. Capacity payments based on kwh supplied during peak hours. Capacity: 5-yr or 10-yr contract: 2.15¢/kwh summer peak, 1.86¢/kwh nonsummer peak. 15-yr contract: 3.63¢/kwh summer peak, 3.14¢/kwh nonsummer peak. Duke Power Co.: 3.03¢/kwh peak, 2.13¢/kwh off-peak. 5-yr contract: 3.27¢/kwh peak, 2.25¢/kwh off-peak. 10-yr contract: 4.08¢/kwh peak, 2.63¢/kwh off-peak. 15-yr contract: 4.79¢/kwh peak, 2.95¢/kwh off-peak. Capacity payment: 1.27¢/kwh summer peak, 0.77¢/kwh nonsummer peak. 5-yr or 10-yr contract: 1.39¢/kwh summer peak, 0.84¢/kwh nonsummer peak. Contracts for 11 yr or longer: 1.83¢/kwh summer peak, 1.10¢/kwh nonsummer peak.
N.Dak.	Final rules issued.	For cogenerators producing over 500 kw: 1.6 to 3.0¢/kwh.
Ohio	Interim rules issued. Utilities have proposed rates, which will be investigated by PUC.	Ohio Power Co.: 1.70 to 2.00¢/kwh.
Okla.	Final rules issued. Interim rates approved for facilities producing under 100 kw; proceedings initiated to determine appropriate avoided-cost methodology; hearings expected.	(interim rates for 100% reliable facilities) Pub. Ser. Co. of Okla.: 4.054¢/kwh, 2.744¢/kwh off-peak. Okla. Gas & Elec.: 3.308¢/kwh.
Oreg.	Final rules issued. Utilities filed rates, but are required by 1 July to file rates based on avoided costs.	3.8 to 4.5¢/kwh.
Pa.	Final rules issued. Utilities have proposed rates. Four utilities have challenged PUC rules in state court.	Pa. Power & Light Co.: 6¢/kwh to cogenerators who use only renewable resources.

STATE	STATUS	RATES
R.I.	Final order issued.	Narragansett Elec. Co.: 5.38¢/kwh peak and 4.038¢/kwh off-peak, or flat 4.736¢/kwh. Blackstone Valley Elec. Co.: Primary voltage: 5.643¢/kwh peak and 4.293¢/kwh off-peak, or flat 4.871¢/kwh. Secondary voltage: 5.920¢/kwh peak and 4.420¢/kwh off-peak, or flat 5.058¢/kwh. Newport Elec. Co.: 4.54¢/kwh peak and 4.14¢/kwh off-peak, or flat 4.38¢/kwh. Pascoag Fire Dist: 3.085¢/kwh peak, 2.902¢/kwh off-peak. Block Island Power Co.: 14.465¢/kwh.
S.C.	Final rules issued. Rates approved.	S.C. Elec. & Gas Co.: 3.26¢/kwh peak, 2.275¢/kwh off-peak. Capacity, \$2.75/kw/mo. Carolina Power & Light Co.: 2.80¢/kwh peak, 2.07¢/kwh off-peak. Capacity, \$3.89/kw/mo July through Oct., \$3.35/kw/mo Nov. through June. Duke Power Co.: 1.9¢/kwh peak, 1.49¢/kwh off-peak. Capacity, \$5.00/kwmo.
S.Dak.	Final rules issued. Rates approved for facilities producing 100 kw or less.	Black Hills Power & Light Co.: 1.30 to 3.50¢/kwh.
Tenn.	Hearing held to consider rates filed by utility. Final order not expected soon.	(proposed) Kingsport Power Co.: 1.36¢/kwh peak and 0.81¢/kwh off-peak or flat 0.81¢/kwh. Capacity, \$3.00/kw/mo if on time-of-day metering, otherwise \$1.50/kw/mo.
TVA	Experimental rates and interim rules extended to Oct. New rules issued for purchase of power from cogenerators outside TVA area.	(interim) 4.64¢/kwh peak and 2.92¢/kwh off-peak, or flat 3.44¢/kwh.
Tex.	Final rules issued. Utilities have filed rates. Houston Lighting & Power Co. has asked for decrease in rates.	Houston Lighting & Power Co.: Option A: Multipliers applied to utility's average fuel cost, currently about 3.0¢/kwh. For non-PURPA QFs, multipliers are 1.31 summer peak, 1.01 summer off-peak, 1.13 winter. For QFs, multipliers are 1.64 summer peak, 1.27 summer off-peak, 1.42 winter. Option B (avail. to QFs over 5,000 kw): hourly payment based on avoided cost formula.
Utah	Final rules issued. Hearing to review policy and revise rates scheduled for 18 July.	Utah Power & Light Co.: (for producers of 1,000 kw or less): 2.2¢/kwh nonfirm, 2.6¢/kwh firm.

STATE	STATUS	RATES
Vt.	Final rules issued. Hearings on revised rate expected to be held in July.	9¢/kwh peak and 6.6¢/kwh off-peak, or flat 7.8¢/kwh.
Va.	Final rules issued. Rates approved.	Va. Elec. & Power Co.: 5.203¢/kwh peak, 3.132¢/kwh off-peak. Capacity: 0.803¢/kwh for facilities operating less than 5 yr. Appalachian Power Co.: Rates range from 1.36¢/kwh winter off-peak to 1.7¢/kwh summer peak. Capacity: \$3.00/kw/mo seasonal peak, \$1.50/kw/mo off-peak.
Wash.	Final rules issued. Rates approved.	Puget Sound Power & Light Co.: 2.07¢/kwh. Pacific Power & Light: 2.795¢/kwh.
W.Va.	Rules proposed. Issuance of final rules had been awaiting outcome of Am. Elec. Power lawsuit.	(proposed) Monogahela Power Co.: 1.00 to 2.00¢/kwh.
Wis.	Rates in effect. Hearings continuing. Final rules expected in June.	Wis. Power & Light Co.: 4.8¢/kwh peak, 1.75¢/kwh off-peak. Madison Gas & Elec. Co.: 2.75¢/kwh summer peak, 2.22¢/kwh winter peak, 1.50¢/kwh off-peak. Wis. Elec. Power: 3.65¢/kwh summer peak, 3.45¢/kwh winter peak, 1.45¢/kwh off-peak. Northern States Power Co.: 1.60¢/kwh peak, 1.14¢/kwh off-peak. Capacity: \$4.00/kw/mo. Lake Superior Dist. Power Co.: 1.90¢/kwh. Capacity: \$6.02/kw/mo. Wis. Pub. Ser. Corp.: 1.85¢/kwh peak, 1.32¢/kwh off-peak. Capacity payments determined by each facility's degree of firmness.
Wyo.	Final rules issued.	Cheyenne Light, Fuel & Power Co. (for nonfirm producers of 100 kw or less): 4.05¢/kwh.

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